Maternal and Infant Mental Health: Developing a Dyadic Model of Care

Karin Downs[1]; Claudia Catalano[1], Beth Buxton-Carter[1], Anna Wiencrot[2]
[1]Division of Perinatal, Early Childhood, and Special Health Needs, Massachusetts Department of Public Health
[2]University of Illinois-Chicago

Background

Impact of Maternal Depression

- 7.9% of US women experience major depression in their lifetime.1
- 10-15% of US women experience a major depressive episode during the perinatal period.2
- Maternal depression linked to numerous adverse child health outcomes: cognitive and language delays, 3,4 difficulties in emotional regulation and attachment,5,6,7 psychopathology,8 early onset of depression,2,9 and behavioral and educational problems,10 impulsive or aggressive behaviors, and difficulties in attention and motivation to learn. 11
- Based on preliminary data from the Pregnancy Risk Assessment Monitoring System (PRAMS) on 2007 births in Massachusetts:12
  - 31% of women reported that they often or sometimes felt down, depressed or hope less since their new baby was born. Of these women, 23% sought professional help.
  - 29% of women reported often or sometimes having little interest or little pleasure in doing things since their new baby was born. One out of five (20%) of these women sought help.

Massachusetts Maternal & Infant Mental Health Project

- Two-year grant from MCHB-HRSA.
- Purpose: To improve maternal well-being and infant mental health through early detection, prevention, and treatment focusing on the mother-infant dyad.
- Community-based best practice model of care.
- Targets a vulnerable population served by the Early Intervention Partnership Program (EIPP) and Early Intervention (EI) Programs: families living below 100% of poverty, minorities and those at risk for poor maternal and birth outcomes including infants at risk for social and emotional delays.
- Importance of early and regular screening for emotional health:
  - At intake, 42% (868/2062) EIPP Participants reported a history of depression including post partum depression.
  - At the initial visit, when the Comprehensive Health Assessment (CHA) is conducted, 57% (1174/2062) were assessed to have a positive emotional health screen of 1 or higher with a history of mental health concerns.

EMOTIONAL HEALTH SCREENING

Sometimes, when things in life get difficult, it is common for people to feel down, sad or depressed.

1. Over the last 2 weeks how often have you been bothered by the following problems:

a. Had little interest or pleasure in doing things? *(not at all (0), some of the time (1), all of the time (2), no response)*

b. Felt down, sad, depressed or hopeless? *(not at all (0), some of the time (1), all of the time (2), no response)*

c. Felt nervous, anxious, on edge, or worrying a lot about different things? *(not at all (0), some of the time (1), all of the time (2), no response)*

Total score___ ≥3 continue assessment.

d. How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Additional Project Activities

- Provided additional home visits to mothers who participate in EIPP and who are identified as either at risk or experiencing perinatal depression. The Project was able to supplement routine home visits with additional visits targeted at working with the mother around perinatal depression.
- Conducted outreach to state legislators in order to create awareness around maternal, infant, and dyadic health issues. Successful in establishing relationship with state representative in order to draft legislation around screening for perinatal depression.
- Increase statewide education through public awareness campaign. Distributed approximately 64,000 materials (brochures, magnets, & posters) through a targeted campaign to birth hospitals, schools, community and state health agencies, Early Intervention, maternal home visiting programs, and community health care centers.

Intervention

Support Groups

GOALS

1. Target pregnant and postpartum women in EIPP & EI who screen positive or at-risk for perinatal depression
2. Structure group around mother-baby bonding and attachment activities
3. Increase parent education around infant development
4. Increase maternal well-being and confidence
5. Decrease social isolation/increase social supports

LOGISTICS

- 7 participating EIPP programs
- All mothers receive Edinburgh or Beck Depression Screen pre & post group
- Groups run for two 10 week sessions/groups
- Approximately 2 hours per session
- Average # of participants per group: 8-10

- Community-oriented and culturally sensitive curricula, structured to meet the needs of the clients
- Support groups offered in English, Spanish, and Khmer

Common Group Activities

- Infant Massage
- Nutrition
- Mayan Wrapping
- Yoga/Exercise
- Self Care
- Parenting Skills
- Mother-Infant Activities
- Infant Development
- Tummy Time/Floor Time
- Reading Time/Literacy
- Open Discussion

Evaluation

Methodology

- An in-person survey was conducted among the EIPP support group participants to evaluate the effectiveness of the program.
- Support group providers were asked to collect information on each support group regarding group enrollment and participants, strengths and challenges of the programs, and anecdotal evidence about the clients' progress.
- Research assistants directly observed groups and conducted semi-structured interviews with providers and moms to assess the feasibility and acceptability of the groups and to identify promising practices.

Results

- 41% of the participants were pregnant
- 48% of women had documented mental health issues
- 55% were considered at risk for depression or other mental health issues
- 70% of women who were screened pre-group screened positive for depression
- 49% of women who were screened post-group, screened positive at the end of the program
- 89% of all children participating in the groups were less than 1 year old

Theme #1: Decreased social isolation/loneliness
I have met other moms I can talk to:
88% agree or strongly agree
"I get to know others in the same situation."
"I get out of the house."
"I don't feel alone."
Theme #2: Increased maternal well-being/confidence
I have learned new ways to take care of myself:

88% agree or strongly agree
"This group has helped me so much…I feel happy, I don't feel shy."
"I am human and it is OK to make mistakes."
"I can deal with stress better."
"The group talked about domestic violence and gave information on how to 'get safe'."

Theme #3: Increased parenting skills/education

I have new ideas about taking care of my baby
97% agree or strongly agree
"I know how to care for her and keep her happy."
"I know what to do when she cries."
"I learned to be more gentle with him."

Theme #4: Increased bonding and attachment with infant

I feel that I am (or will be)
94% said "a very good parent" or "better than an average parent"
"I feel closer with the infant massage."
"I like to see what other mothers do."
"I feel more secure about being a mother."
"I feel more bonding and protective."

Recommendations

1. Screening in prenatal, immediate postpartum and through first year of life.
2. Use of groups as an effective way to address social isolation and the dyadic relationship.
3. Increase provider capacity through training to work with the mother -infant dyad.
4. Culturally sensitive public awareness & education.

References

1Brockington I. Motherhood and mental health. In. New Your: Oxford University Press; 1996.
2Weissman MM, Olfson M. Depression in women: implications for health care research. Science 1995;269(5225):799-801.
3Chronicity of maternal depressive symptoms, maternal sensitivity, and child functioning at 36 months. NICHD Early Child Care Research Network. Dev Psychol 1999;35(5):1297-310.
4Petterson SM, Albers AB. Effects of poverty and maternal depression on early child development. Child Dev 2001;72(6):1794-813.
5Dawson G, Frey K, Panagiotides H, Osterling J, Hessl D. Infants of depressed mothers exhibit atyp ical frontal brain activity: a replication and extension of previous findings. J Child Psychol Psychiatry 1997;38(2):179-86.
6Weinberg MK, Tronick EZ. Emotional characteristics of infants associated with maternal depression and anxiety. Pediatrics 1998;102(5 Suppl E):1298-304.
7Zuckerman BS, Beardslee WR. Maternal depression: a concern for pediatricians. Pediatrics 1987;79(1):110-7.
8Goodman SH, Gotlib IH. Risk for psychopathology in the children of depressed mothers: a developmental model for understanding mechanisms of transmission. Psychol Rev 1999;106(3):458 -90.
9Murray L, Woolgar M, Cooper P, Hipwell A. Cognitive vulnerability to depression in 5 -year-old children of depressed mothers. J Child Psychol Psychiatry 2001;42(7):891 -9.
10Black MM, Papas MA, Hussey JM, Hunter W, Dubowitz H, Kotch JB, et al. Behavior and development of preschool children born to adolescent mothers: risk and 3 -generation households. Pediatrics 2002;109(4):573-80.

11Onunaku N. Improving maternal and infant mental health: Focus on m aternal depression. In. Los Angeles, CA: National Center for Infant and Early Childhood Health Policy at UCLA
Zero to Three Policy Center; AMCHP; Johns Hopkins Bloomberg School of Public Health, Women's and Children's Health Policy Center; 2005.
12Center for Disease Control (CDC). Pregnancy Risk Assessment Monitoring System (PRAMS) and Postpartum Depression. In: Department of Health and Human Services, Massachusetts Department of Public Health; 2007.